WHAT IS CLAIMED IS:

1. A transmission method for converting a packet frame of a user into a synchronous frame and transmitting said synchronous frame by a time division multiplex network, the method comprising the step of:

allocating a time-division multiplex transmission band to said user according to a channel band of said packet frame of said user.

2. A transmission device comprising:

converting means for converting a packet frame of a user into a synchronous frame so as to transmit said synchronous frame by a time division multiplex network; and

transmission-band allocating means for allocating a time-division multiplex transmission band to said user according to a channel band of said packet frame of said user.

3. The transmission device as claimed in claim 2, wherein said converting means maps said packet frame of said user to a payload of a minimum-unit synchronous frame of a plurality of paths in bytes.

4. The transmission device as claimed in claim 2, wherein said converting means maps said packet frame of said user to a payload of a minimum-unit synchronous frame of a plurality of paths in units corresponding to a number of bytes of said payload.

5. The transmission device as claimed in claim 2, wherein said converting means maps said packet frame of said user to a payload of a minimum-unit synchronous frame of a plurality of paths in units corresponding to a number of bytes of said packet frame.

6. The transmission device as claimed in claim 5, wherein said converting means maps said packet frame of said user to the payload of the minimum-unit synchronous frame of the paths excluding a troubled path when a trouble occurs in any of said paths.

7. The transmission method as claimed in claim 1, wherein said packet frame of said user is transmitted through a gigabit LAN.

8. The transmission method as claimed in claim 1, wherein said time division multiplex network is a SONET (Synchronous Optical Network).

9. The transmission device as claimed in claim 2, wherein said packet frame of said user is transmitted through a gigabit LAN.

10. The transmission device as claimed in claim 2, wherein said time division multiplex network is a SONET (Synchronous Optical Network).